

Listing of Claims

- 1 1. (Original) A web-fed flexographic printing method comprising the steps of:
- 2 (A) providing a holographic sheet on a first roller, the holographic sheet comprising a
- 3 hologram, the holographic sheet further comprising an eye-mark, the eye-mark being
- 4 located at a fixed location with reference to the hologram;
- 5 (B) providing a cardstock substrate on a second roller;
- 6 (C) feeding the holographic sheet and the cardstock substrate through a web-fed
- 7 flexographic printer, the step of feeding the holographic sheet and the substrate
- 8 comprising the steps of:
- 9 (C1) applying an adhesive to the cardstock substrate using an adhesive roller;
- 10 (C2) marrying the holographic sheet and the cardstock substrate using the adhesive
- 11 applied to the cardstock substrate, the marrying of the holographic sheet and
- 12 the cardstock substrate resulting in a married web;
- 13 (C3) detecting the eye-mark;
- 14 (C4) generating a feedback signal in response to detecting the eye-mark;
- 15 (C5) conveying the feedback signal to a controller, the controller being coupled to a
- 16 motor, the controller being configured to control a rate of the motor in
- 17 response to the feedback signal;
- 18 (C6) determining whether to adjust the rate of the motor in response to the
- 19 feedback signal;
- 20 (C7) adjusting the rate of the motor in response to determining that the rate of the
- 21 motor is to be adjusted;
- 22 (C8) overprinting ultra-violet (UV) ink onto the holographic sheet, the UV ink

23 being overprinted at a registered location, the registered location being a
24 location that is fixed with reference to the eye-mark;
25 (C9) curing the UV ink at a UV drying station;
26 (C10) die cutting the married web at a rotary die.

1 2. (Original) The method of claim 1, further comprising the step of:
2 printing a serial number on the married web prior to die cutting the married web; and
3 wherein the step of die cutting the married web comprises the step of generating an
4 identification tag having the printed serial number.

1 3. (Original) A printing method comprising the steps of:
2 providing a web for a web-fed flexographic printing process, the web having a micro-
3 optic structure and an eye-mark, the micro-optic structure being located at a predefined
4 position on the web, the eye-mark being located at a fixed position on the web with reference
5 to the predefined position of the micro-optic structure;
6 determining a feed rate for the web-fed flexographic printing process, the feed rate
7 being determined using the eye-mark;
8 feeding the web at the determined feed rate; and
9 overprinting a layer onto the surface of the web, the layer being printed using the
10 web-fed flexographic printing process.

1 4. (Original) The method of claim 3, wherein the step of providing the web
2 comprises the step of providing a holographic sheet having a hologram, the hologram being
3 located at a predefined position on the holographic sheet.

1 5. (Original) The method of claim 4, wherein the step of providing the
2 holographic sheet comprises the step of embedding a security feature in the web.

1 6. (Original) The method of claim 5, wherein the step of embedding a security
2 feature in the web comprises the step of embedding a three-dimensional stereogram into the
3 hologram.

1 7. (Original) The method of claim 5, wherein the step of embedding a security
2 feature in the web comprises the step of embedding a marking in the holographic sheet, the
3 marking being configured to project a predefined image in response to the marking being
4 irradiated by a laser.

1 8. (Original) The method of claim 5, wherein the step of embedding a security
2 feature in the web comprises the step of embedding a holographic image in the holographic
3 sheet, the holographic image being configured to alter its visual appearance when viewed at
4 different angles.

1 9. (Original) The method of claim 5, wherein the step of embedding a security
2 feature in the web comprises the step of providing a microprint of a predefined pattern in the
3 holographic sheet.

1 10. (Original) The method of claim 5, wherein the step of embedding a security
2 feature in the web comprises the step of providing a nanoprint of a predefined pattern in the
3 holographic sheet.

1 11. (Original) The method of claim 5, wherein the step of embedding a security
2 feature in the web comprises the step of printing a unique serial number on the web.

1 12. (Original) The method of claim 11, further comprising the step of die cutting
2 the web to generate an identification tag having the unique serial number.

1 13. (Original) The method of claim 3, wherein the step of determining the feed
2 rate comprises the steps of:
3 detecting the eye-mark;
4 generating a feedback signal in response to detecting the eye-mark;
5 determining whether to adjust the feed rate; and
6 adjusting the feed rate in response to determining that the feed rate is to be adjusted,
7 otherwise maintaining the feed rate.

1 14. (Original) The method of claim 13, wherein the step of adjusting the feed rate
2 comprises the step of altering a speed of a feed motor.

1 15. (Original) The method of claim 3, wherein the step of overprinting the layer
2 comprises the step of:
3 overprinting the layer at a registered location on the web, the registered location being
4 a fixed position with reference to the location of the eye-mark.

1 16. (Original) The method of claim 3, further comprising the step of die cutting
2 the web.

1 17. (Original) The method of claim 16, wherein the step of die cutting the web
2 comprises the step of generating identification tags.

1 18. (Original) In a web-fed flexographic printing process, a method comprising
2 the steps of:
3 placing a micro-optic structure at a predefined position on a web;
4 placing an eye-mark on the web, the eye-mark being located at a fixed position on the
5 web with reference to the predefined position of the micro-optic structure;
6 determining a feed rate for the web-fed flexographic printing process, the feed rate
7 being determined using the eye-mark;
8 feeding the web at the determined feed rate; and
9 overprinting a layer onto the surface of the web.

1 19. (Original) An identification tag produced by a process comprising the steps
2 of:
3 providing a web for a web-fed flexographic printing process, the web having a micro-
4 optic structure and an eye-mark, the micro-optic structure being located at a predefined
5 position on the web, the eye-mark being located at a fixed position on the web with reference
6 to the predefined position of the micro-optic structure;
7 determining a feed rate for the web-fed flexographic printing process, the feed rate
8 being determined using the eye-mark;
9 feeding the web at the determined feed rate; and
10 overprinting a layer onto the surface of the web, the layer being printed using the
11 web-fed flexographic printing process.

1 20. (Original) A tag for identifying merchandise, the tag comprising:
2 a holographic sheet defining a substantially planar surface, the holographic sheet
3 having a hologram, the hologram being located at a predefined location in the holographic
4 sheet;
5 means for impeding unauthorized duplication of the tag, the means for impeding
6 being coupled to the holographic sheet; and
7 a layer overprinted at a registered location on the substantially planar surface of the
8 holographic sheet, the registered location being a location that is horizontally fixed in the
9 plane of the holographic sheet, the registered location further being a location that is
10 vertically fixed in the plane of the holographic sheet, the registered location further being a
11 location that is fixed with reference to the location of the hologram.

1 21. (Original) An identification device comprising:
2 a structure defining the identification device, the structure having a micro-optic
3 image; and
4 a layer overprinted onto the surface of the structure.

1 22. (Original) The identification device of claim 21, wherein the structure
2 is a substantially-planar structure.

1 23. (Original) The identification device of claim 22, wherein the layer is
2 overprinted at a registered location, the registered location being a location that is
3 horizontally fixed in the plane of the substantially-planar structure, the registered location
4 further being a location that is vertically fixed in the plane of the substantially-planar
5 structure, the registered location further being a location that is fixed with reference to the
6 location of the micro-optic image.

1 24. (Original) The identification device of claim 22, wherein the substantially-
2 planar structure comprises a flexible cardstock material.

1 25. (Original) The identification device of claim 22, wherein the micro-optic
2 image is a hologram.

1 26. (Original) The identification device of claim 25, further comprising means for
2 impeding unauthorized duplication of the identification device.

1 27. (Original) The identification device of claim 25, further comprising a security
2 feature adapted to impede unauthorized duplication of the identification device.

1 28. (Original) The identification device of claim 27, wherein the security feature
2 comprises a three-dimensional stereogram.

1 29. (Original) The identification device of claim 27, wherein the security feature
2 comprises a marking, the marking being configured to project a predefined image in response
3 to the marking being irradiated by a laser.

1 30. (Original) The identification device of claim 27, wherein the security feature
2 comprises an image configured to alter its visual appearance when viewed at different angles.

1 31. (Original) The identification device of claim 27, wherein the security feature
2 comprises a microprint of a predefined pattern.

1 32. (Original) The identification device of claim 31, wherein the predefined
2 pattern is text.

1 33. (Original) The identification device of claim 27, wherein the security feature
2 comprises a nanoprint of a predefined pattern.

1 34. (Original) The identification device of claim 27, wherein the security feature
2 comprises a unique serial number.

1 35. (Original) The identification device of claim 22, wherein the layer is
2 substantially opaque.

1 36. (Original) The identification device of claim 22, wherein the layer is patterned
2 on the substantially-planar structure.

1 37. (Original) The identification device of claim 36, wherein the patterned layer
2 comprises an opening, the opening being located at a location corresponding to the micro-
3 optic image.

1 38. (Original) The identification device of claim 37, wherein the micro-optic
2 image has a predefined shape, and the opening has a shape that substantially corresponds to
3 the predefined shape of the micro-optic image.

1 39. (Original) The identification device of claim 22, wherein the substantially-
2 planar structure is a non-rectangular geometric shape.